

Title (en)
Semiconductor device.

Title (de)
Elektroden-Struktur für Halbleiteranordnung.

Title (fr)
Structure d'électrode pour dispositif semi-conducteur.

Publication
EP 0552023 A1 19930721 (EN)

Application
EP 93300196 A 19930113

Priority
JP 516892 A 19920114

Abstract (en)
A P-type electrode structure is provided for a Group II-VI semiconductor device having a P-type Group II-VI semiconductor layer (101;201;301) consisting of or containing Zn and Se and an ohmic metal electrode (104;204;310). To reduce the resistance of the device between the semiconductor layer (101,201,301) and the electrode (104,204,310) there is at least one intermediate layer (102;202,203;311,312) of a Group II-VI compound containing a Group II element other than Zn, for example Hg.

IPC 1-7
H01L 21/441; H01L 33/00

IPC 8 full level
H01L 21/441 (2006.01); **H01L 33/28** (2010.01); **H01L 33/30** (2010.01); **H01L 33/40** (2010.01); **H01S 5/00** (2006.01)

CPC (source: EP US)
H01L 21/441 (2013.01 - EP US); **H01L 33/40** (2013.01 - EP US); **H01L 33/28** (2013.01 - EP US); **H01L 2924/0002** (2013.01 - EP US)

Citation (search report)
• [A] US 4123295 A 19781031 - MCCALDIN JAMES O, et al
• [A] PATENT ABSTRACTS OF JAPAN vol. 13, no. 393 (E-814)31 August 1989 & JP-A-11 40 663 (TOSHIBA CORP)
• [A] SOLAR CELLS vol. 27, no. 1-4, October 1989, LAUSANNE CH pages 177 - 189 M.-A. NICOLET ET AL. 'Issues in metal/semiconductor contact design and implementation'
• [A] JOURNAL OF PHYSICS D. APPLIED PHYSICS vol. 16, 1983, LETCHWORTH GB pages 2333 - 2340 E. JANIK AND R. TRIBOULET 'Ohmic contacts to p-type cadmium telluride and cadmium mercury telluride'
• [A] JOURNAL OF CRYSTAL GROWTH vol. 86, no. 1-4, 1 January 1988, AMSTERDAM NL pages 917 - 923 J. THOMPSON ET AL. 'The growth of CdHgTe by metalorganic chemical vapour deposition for optical communication devices'

Cited by
CN104181773A; US5610413A; US5548137A; EP0674347A1; US5767536A; WO9415369A1

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DE FR GB

DOCDB simple family (publication)
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US 5644165 A 19970701

DOCDB simple family (application)
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